

Predicting Heavy Drug Use

Results of a Longitudinal Study, Youth Characteristics
Describing and Predicting Heavy Drug Use by Adults

F E B R U A R Y 2 0 0 4



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF NATIONAL DRUG CONTROL POLICY

Predicting Heavy Drug Use

**Executive Office of the President
Office of National Drug Control Policy
Washington, DC
20503**

February 2004

Acknowledgements

This publication was sponsored by the Executive Office of the President, Office of National Drug Control Policy (ONDCP). Sam Schildhaus, Yoku Shaw-Taylor, Steven Pedlow, Michael R. Pergamit, and other staff of the National Opinion Research Center (NORC) at the University of Chicago produced this publication under a contract to ONDCP, contract number 282-98-0024, Task Order number 3. June S. Sivilli served as Project Officer for this study and resulting publication.

Disclaimer

The opinions expressed herein are the views of the authors and do not necessarily reflect the official policy of the Federal Government.

Public Domain Notice

All material appearing in this report is in the public domain and may be reproduced without permission from ONDCP or the authors. Citation of the source is appreciated. Suggested citation:

Office of National Drug Control Policy (2004). *Predicting Heavy Drug Use*
Washington, DC: Executive Office of the President (Publication No. NCJ 208382)

Electronic Access to Publication

This document can be accessed electronically through the following World Wide Web address:

<http://www.whitehousedrugpolicy.gov>

Originating Office

Executive Office of the President
Office of National Drug Control Policy
Washington, DC 20503

Publication Number NCJ 208382

Printed in January 2005

Executive Summary

Dynamic Picture of Marijuana and Cocaine Use from Age 14 to 40

- This study's main aims are to describe the movement of adolescents and young adults into and out of drug use and to predict heavy drug use. The data source is the Department of Labor's National Longitudinal Survey of Youth, which began in 1979 with a sample of 12,686 adolescents aged 14–21. After 17 rounds and 19 years, the response rate in 1998 was 87 percent.

The Transient Nature of Most Marijuana and Cocaine Use

- A majority of the sample reported no drug use in the five “index” rounds (questions on drug use were asked for five years during the 15-year period between 1984 and 1998). Overall, 42 percent of individuals reported marijuana use, 19 percent reported cocaine use, and 3 percent reported crack use (crack questions were collected only between 1992 and 1998).
- Most of the persons using any drug in a given round never used the drug again or used the drug for one additional round. Overall, 19.2 percent used marijuana, 11.7 percent used cocaine, and 2.7 percent used crack in one round only.
- Very few individuals reported drug use in all five index rounds: 3.2 percent used marijuana and 0.2 percent used cocaine in every round from 1984 to 1998. For crack, 0.2 percent used in the three rounds between 1992 and 1998.
- Only 3.9 percent used marijuana and 0.6 percent used cocaine in four rounds; crack was used in two rounds by 0.6 percent.
- Almost half of marijuana users who used in *one* index round used marijuana in the next one. Only *one* of 16 non-marijuana users in one index period *used* marijuana in the subsequent period.
- About one-quarter of cocaine users who used in one index round used cocaine in the subsequent study period. Only one of 32 non-cocaine users in one index period *used* cocaine in the next one.

Early Predictors of Heavy Cocaine Use

- All other things being equal, adolescents and young adults who smoked marijuana more than 50 times at the first contact were six times more likely to become heavy cocaine users than those who did not smoke marijuana. This finding supports the suggestion that preventing adolescents and young adults from using substantial amounts of marijuana may lead to a considerable decrease in the number of future heavy cocaine users.
- Young male users were almost twice as likely as young female drug users to become heavy drug users.

- Those who had been suspended from school were one and one-half times more likely to become heavy cocaine users than those who had not been suspended from school.
- Adolescents and young adults who reported a significant amount of illegal income at round one were more than twice as likely to become heavy cocaine users as those who did not. Also, those who sold hard drugs at round one during adolescence were two times as likely to become heavy cocaine users as those who did not. Directing adolescents and young adults from criminal occupations is not only associated with lower future criminal behavior, it is likely to be associated with substantial decreases in the number of heavy cocaine users.
- Adolescents and young adults who attended religious services at least twice a month were one-third less likely to become heavy cocaine users as those who attended no religious services. Attending infrequently is associated with a one-quarter lower likelihood of becoming a heavy cocaine user. Family and community efforts to encourage religious attendance by youth may be associated with fewer heavy cocaine users in the future.

Table of Contents

1. INTRODUCTION.....	1
Background and Purpose.....	1
Organization of this Report	2
2. METHODOLOGY.....	3
Description of National Longitudinal Survey of Youth	3
Analytic Techniques	5
<i>Description of Movement into and out of Drug Use.....</i>	<i>5</i>
<i>Prediction</i>	<i>5</i>
Variables	6
Nonresponse Analysis	9
3. DRUG USE 1984–1998	11
Comparison Between Those Included/Not Included in Analysis	11
Movement Into and Out of Drug Use	14
<i>Marijuana Use in the Past Year.....</i>	<i>14</i>
<i>Cocaine Use in the Past Year</i>	<i>17</i>
<i>Marijuana and Cocaine Use in the Past Year</i>	<i>17</i>
<i>Correlates of Number of Years Used Drugs: Gender and</i>	
<i>Racial/Ethnic Differences</i>	<i>22</i>
<i>Comparisons of Drug Use Over Time</i>	<i>23</i>
<i>Comparison Between NLSY and National Household Survey</i>	
<i>on Drug Abuse (NHSDA)</i>	<i>26</i>
<i>Strengths of Longitudinal Surveys.....</i>	<i>29</i>
Summary.....	29
4. HEAVY DRUG USE.....	31
Introduction	31
Age of First Use	31
Prediction of Heavy Cocaine Use	37
Correlates of Number of Years of Drug Use	40
Summary.....	42
5. LONGITUDINAL SCREENING.....	43
Introduction	43
Screening the Sample.....	43
Selecting the Sample	44
Weighting the Sample	45
Conclusion	45
APPENDIX A	46

List of Exhibits

	Page
EXHIBIT 2.1	NLSY79 MODE AND RESPONSE RATES BY YEAR..... 4
EXHIBIT 2.2	DRUG USE FOR INDIVIDUAL YEARS AND COMBINATIONS OF YEAR 8
EXHIBIT 2.3	FOUR TESTS OF NON-RANDOM DROPOUT AMONG HEAVY COCAINE USERS 10
EXHIBIT 3.1	COMPARISONS OF SAMPLE RESPONDENTS 1984-1998 AND SAMPLE RESPONDENTS 1984-1994..... 12
EXHIBIT 3.2	COMPARISONS OF STUDY SAMPLE AND SAMPLE EXCLUDED FROM STUDY..... 13
EXHIBIT 3.3	DISTRIBUTION TREE OF RESPONDENTS WHO REPORTED SMOKING MARIJUANA IN 1984 15
EXHIBIT 3.4	DISTRIBUTION TREE OF RESPONDENTS WHO REPORTED NO MARIJUANA USE IN 1984..... 16
EXHIBIT 3.5	DISTRIBUTION TREE OF RESPONDENTS WHO REPORTED USING COCAINE IN 1984..... 18
EXHIBIT 3.6	DISTRIBUTION TREE OF RESPONDENTS WHO REPORTED NO COCAINE USE IN 1984..... 19
EXHIBIT 3.7	DISTRIBUTION TREE OF RESPONDENTS WHO REPORTED COCAINE AND MARIJUANA USE IN 1984 20
EXHIBIT 3.8	DISTRIBUTION TREE OF RESPONDENTS WHO REPORTED NO COCAINE AND MARIJUANA USE IN 1984..... 21
EXHIBIT 3.9	NUMBER OF TIMES USED MARIJUANA BY GENDER..... 22
EXHIBIT 3.10	NUMBER OF TIMES USED COCAINE BY GENDER 22
EXHIBIT 3.11	NUMBER OF TIMES USED MARIJUANA BY RACE/ETHNICITY 23
EXHIBIT 3.12	NUMBER OF TIMES USED COCAINE BY RACE/ETHNICITY 23
EXHIBIT 3.13	MARIJUANA USE BETWEEN ADJACENT SURVEY PERIODS 24
EXHIBIT 3.14	COCAINE USE BETWEEN ADJACENT SURVEY PERIODS..... 24
EXHIBIT 3.15	NUMBER OF YEARS USED DRUG 24
EXHIBIT 3.16	PERCENTAGE WHO USED MARIJUANA ADDITIONAL YEARS BY NUMBER OF YEARS USED MARIJUANA 25
EXHIBIT 3.17	PERCENTAGE WHO USED COCAINE ADDITIONAL YEARS BY NUMBER OF YEARS USED COCAINE..... 25
EXHIBIT 3.18	NUMBER OF YEARS USED COCAINE BY NUMBER OF YEARS USED MARIJUANA..... 27

	Page
EXHIBIT 3.19	COMPARISON BETWEEN NHSDA AND NLSY FOR LIFETIME AND PAST YEAR MARIJUANA AND COCAINE USE 1984-1998 28
EXHIBIT 4.1	HEAVY COCAINE USE AMONG THOSE WHO HAD/HAD NOT SMOKED FIRST CIGARETTE BY AGE 32
EXHIBIT 4.2	HEAVY COCAINE USE AMONG THOSE WHO HAD/HAD NOT STARTED SMOKING DAILY BY AG 33
EXHIBIT 4.3	HEAVY COCAINE USE AMONG THOSE WHO HAD/HAD NOT STARTED DRINKING 2+ A WEEK BY AGE..... 34
EXHIBIT 4.4	HEAVY COCAINE USE AMONG THOSE WHO HAD/HAD NOT USED MARIJUANA BY AGE 35
EXHIBIT 4.5	HEAVY COCAINE USE AMONG THOSE WHO HAD/HAD NOT USED COCAINE BY AGE..... 36
EXHIBIT 4.6	HEAVY COCAINE USE AMONG THOSE WHO HAD/HAD NOT USED CRACK COCAINE BY AGE..... 37
EXHIBIT 4.7	CORRELATES OF HEAVY COCAINE USE: RESULTS OF LOGISTIC REGRESSION MODEL..... 39
EXHIBIT 4.8	CORRELATES OF NUMBER OF YEARS USING MARIJUANA, COCAINE, CRACK: RESULTS OF OLS REGRESSION MODELS 41